



Naval Information Warfare Center Atlantic

CAPT Wesley Sanders, USN
Commanding Officer
NIWC Atlantic

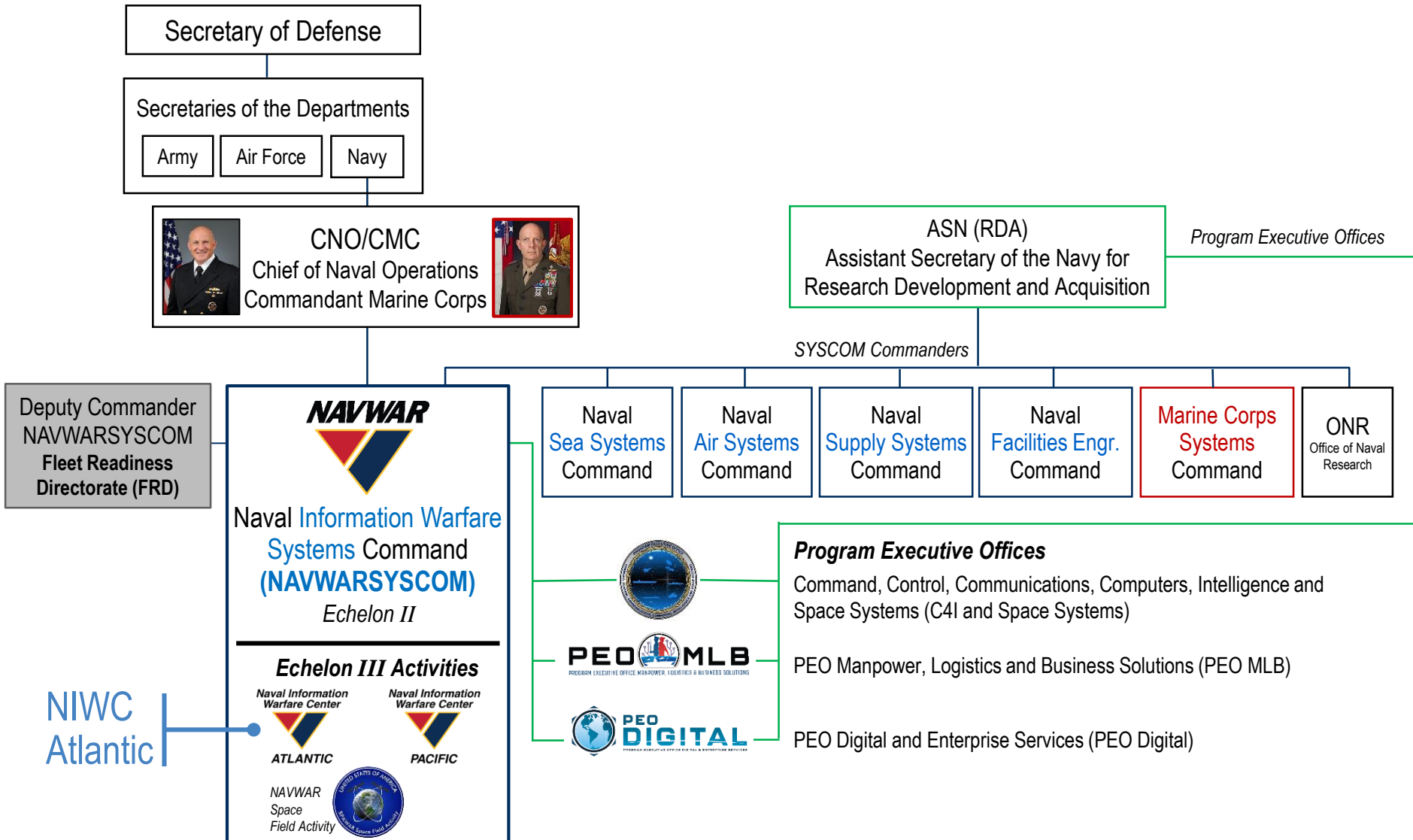
Mr. Peter Reddy, SES
Executive Director
NIWC Atlantic

NIWC Atlantic's Mission and Vision

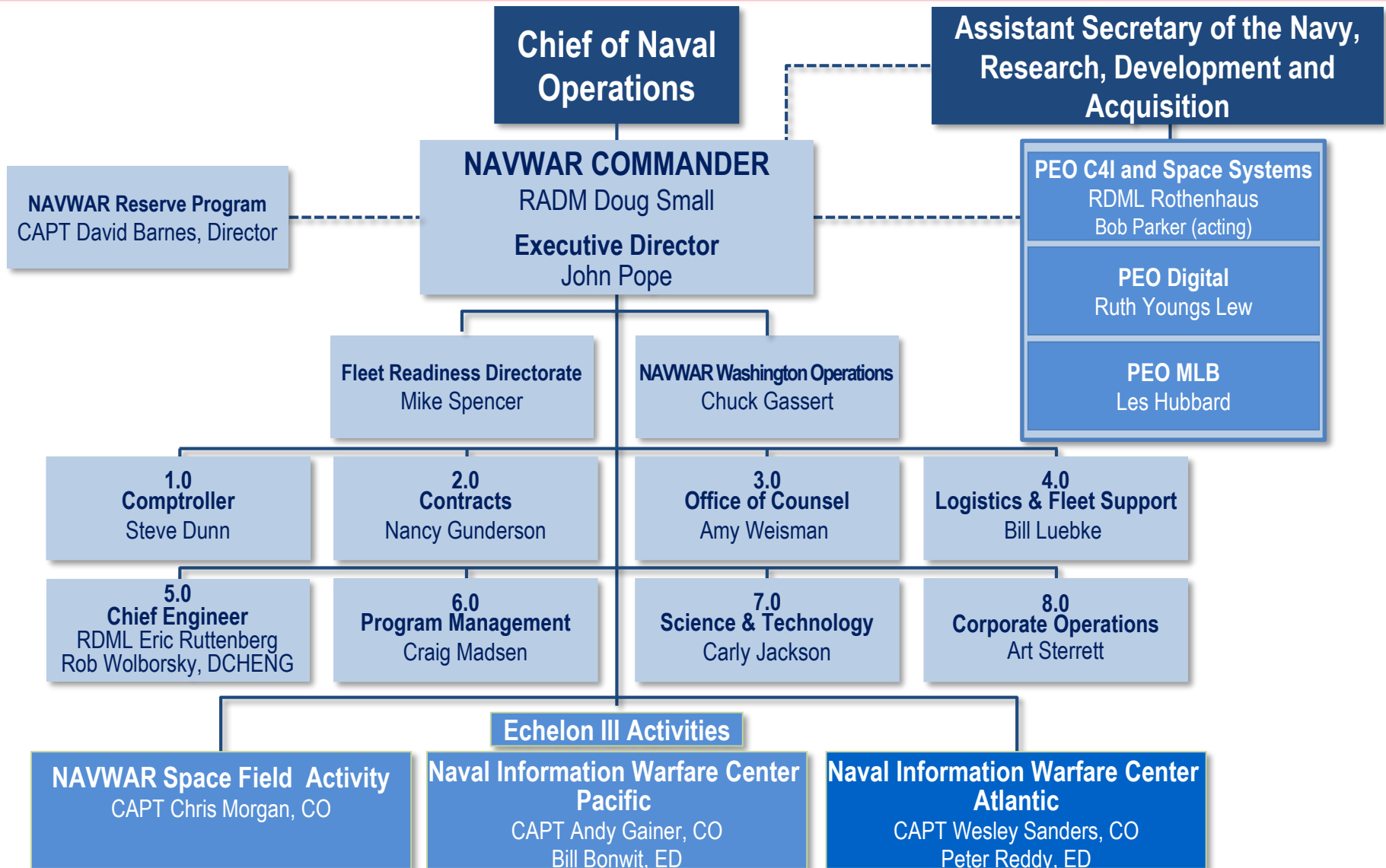
Mission: Serving our Nation by delivering information warfare solutions that protect national security. Includes: communication systems (radios), networking systems (routers/switches), cyber operations (red team/forensics/network defense), intelligence, surveillance, reconnaissance (sensors/decision support applications), business systems (benefits/personnel) and information security.



Where We Fit in the DON Structure



NAVWAR Organization



Program Executive Offices



▼ PEO C4I and Space Systems

- Five program offices focused on capability development (100s)
- Five program offices focused on platform integration (700s)
- Command and control, intelligence sharing, terminals, etc (CANES, NMT, GCCS-M, DCGS-N, ...)
- Responsible for DoD's Narrowband SATCOM, Legacy Ultra High Frequency Follow-on Program
- Mobile User Objective System (MUOS)



▼ PEO MLB

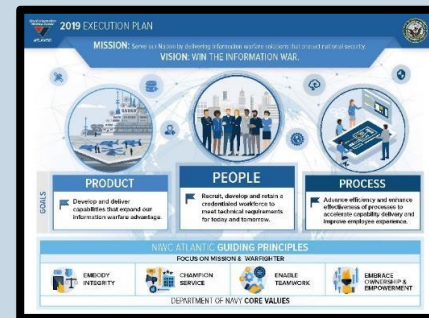
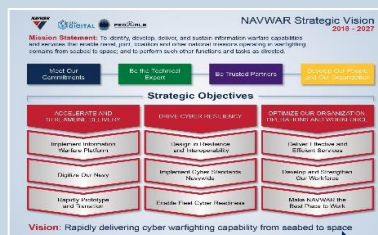
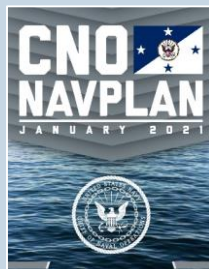
- MyNavy HR IT Solutions
- Navy ERP - Financials Services
- Logistics IT Services
- Logistics Integration Information Solutions Services
- Applications Services
- Data Transformation Services
- Enterprise Systems and Services & Innovation Support Services
- Systems realigned from PMW 150
 - Naval Operations Business Logistics Enterprise (NOBLE) program
 - Select in-service systems from Naval Tactical Command Support System (NTCSS)
 - Select in-service systems from Maintenance Figure of Merit (MFOM)



▼ PEO Digital

- Naval Enterprise Networks
- Special Networks And Intelligence Mission Applications
- Navy Commercial Cloud Services
- Special Access Program Networks
- Enterprise Information Technology Strategic Sourcing
- Portfolio Manager Marine Corps Supporting Establishment Systems

Executing National and Naval Strategies



Clear strategy for what is needed NOW and for the FUTURE

NIWC Atlantic's Execution Plan Aligns to NAVWAR Vision to execute National and Naval strategies

All Hands on Deck We can't execute without our technical workforce and industry base

PRODUCT



Develop and deliver capabilities that expand our information warfare advantage.

Partners: Match and deliver the Navy's demand for new technologies and equipment.

PEOPLE



Recruit, develop and retain a credentialed workforce to meet technical requirements for today and tomorrow.

Ensure the growth and health of technical knowledge and skills.

PROCESS



Advance efficiency and enhance effectiveness of processes to accelerate capability delivery and improve employee experience.

Improve planning and communication. Keep lines of communication open, deliver on time.

NIWC Atlantic At-a-Glance



Unique Labs and Capabilities

- National Cyber Range Complex
- Surface Ship Test and Integration Facility
- PNT Lab and Network Integration Engr. Facility/CANES
- Common Submarine Radio Room production & testing
- NIWC Atlantic National Security Operations Center/ NAVWAR Red Team (NSA, USCYBERCOM and DOD Cyber Red Team Accredited)
- Electromagnetic and Interference Testing Facility Poseidon Park
- Environmental test labs
- Marine Corps Installations Command Electronic Security Systems
- 5G Comms. Capability and Outdoor Optical Range
- Cyber Forensics Criminal Investigations Laboratory
- Cyber Computer Network Defense Laboratory
- DOD Component Enterprise Data Centers and Networks and Satellite Comms Gateways
- Software Defined Radio & RF Testing, Commercial and DOD Satellite Comms production and installation
- Small Autonomous Unmanned Systems Range (SAUSR)
- Seaworthy Artificial Intelligence Lab (SAIL)
- Vehicle C4I systems integration, testing and production facility
- Global Distance Support Help Desk
- Air Traffic Control systems development and installation

FY 2020

- Primarily a Navy Working Capital Fund (NWCF) Organization. Relying on sales revenue rather than direct Congressional appropriations to finance its operations
- \$3.76B Total Obligation Authority
- \$1.85B Total SB eligible dollars
 - 47.7% Small Business
 - 400+ Small Businesses
 - 97% Competition
- New Orders
 - 59% Naval
 - 35% Joint
 - 6% Non DOD
- Workforce FTEs
 - 73% Naval
 - 23% Joint
 - 4% Non-DOD
- 5 Departments
 - 139 IPTs
 - 1,636 Projects (active \$)

Apr. 2021

- 5,053 (4,917 Gov't, 122 Mil) ~9,000 from Industry
 - 42% prior Military
 - 281 New Professionals (FY20)
 - 124 Student Interns (FY20)
 - 13 Senior Scientific Technical Mgrs. (SSTMs)
 - 59 PhDs
 - 1,312 Masters
 - 2,164 Bachelors
- Top Sponsors
 - NAVWAR & PEOs
 - MARCORSYSCOM
 - Defense Health
 - NAVSEA & PEOs
 - DARPA
- Top Occupational Series (60%)
 - IT Specialist (21%)
 - Electronics Engineer (12%)
 - Computer Scientist (11%)
 - Electronics Tech (9%)
 - Mgmt & Prog Analyst (7%)

Sea/Rail/Air Joint Base Charleston Presence

NIWC Atlantic CHS:

- 3,271 Gov't
 - 15 Military
- 79 bldgs, 1.36M sq ft

Weapons Station JBC

- Army Field Support Battalion Charleston (AFSBn-CHS)
- 841st Transportation Battalion

DOD Component Enterprise Data Center

(Located in Charleston and New Orleans)

Air Force Base JBC

- 628th Air Base Wing
- 437th / 315th Airlift Wings

Common Submarine Radio Room production and testing

Air Traffic Control

Vehicle C4I Integration Facility

Surface Ship Test and Integration Facility

NIWC Atlantic HQ, Main Engr. Center

South Annex

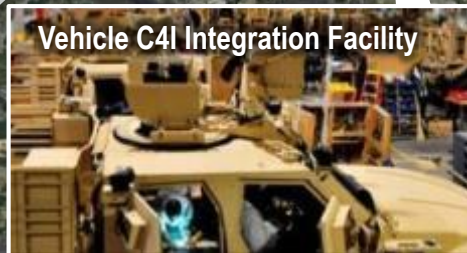
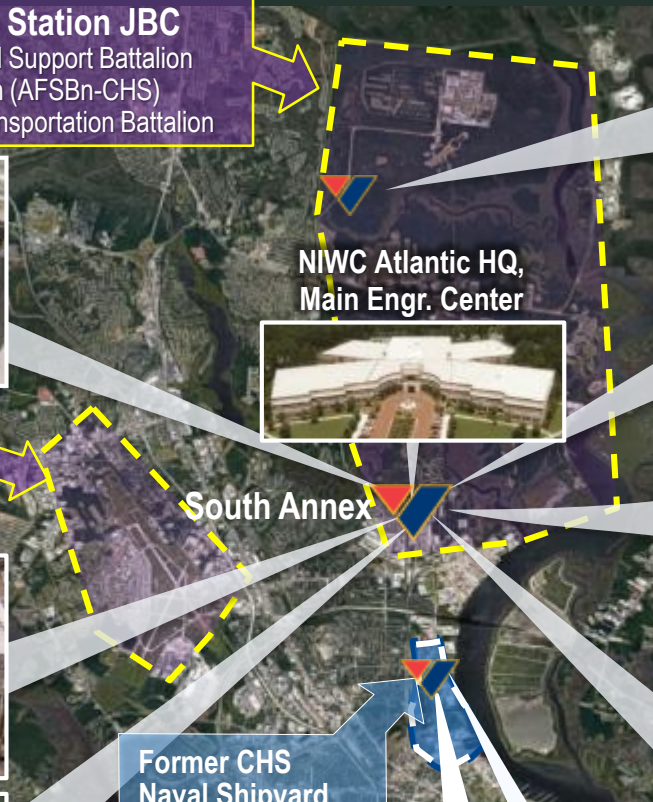
Former CHS Naval Shipyard

Poseidon Park Electromagnetic Interference (EMI) Testing

Satellite Comms Software Defined Radio & RF Testing

Cyber Forensics and Data Recovery Labs Oct 2017

Electromagnetic and Environmental test labs / Anechoic Chamber



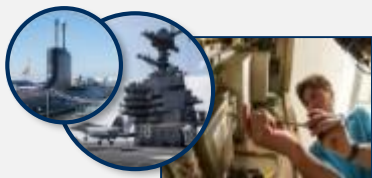
Other Major Locations Driving IW Capabilities

Hampton Rds, VA

896 Gov't, 93 Mil

Ship and Submarine installations, upgrades and IT support

- Fleet ops & support
- Co-located with Fleet Forces Command and NAVIFOR
- Communication systems integration & maintenance
- Navigation systems
- Navy Tactical Command Support System (NTCSS)
- Integrated Undersea Surveillance System
- Fleet Installations and Upgrades, CANES / NTCSS
- USMC IT Strategic Sourcing

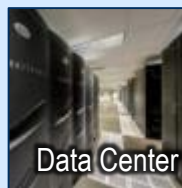


New Orleans, LA

245 Gov't, 7 Mil

Develop and support software programs that help our warfighters with pay and benefits

- Center of DON manpower & personnel software design & support
- DON Global Distance Support (Help Desk)
- DOD Component Enterprise Data Center
- Veterans Benefits Mgmt. IT Systems, web portal & software development
- Logistics & IT support
- GCSS MC Service Desk
- Defense Health



National Capital Region

219 Gov't

Gather and understand information that keeps our warfighters and nation safe

- FLTCYBERCOM / C10F
- NAVSEA & NAVAIR Platform C4I/Cyber / ID support
- USCYBERCOM (USCC)
- IESS (Secret Service protected facilities)
- PEO-EIS / NGEN
- DCGS-N / DCGS-MC
- MARCORSYSCOM
- Anti-Terrorism / Force Protection
- DCI / MCWL embeds



Other CONUS/OCONUS

286 Gov't, 7 Mil

Supports our warfighters with IT and information warfare capabilities wherever they are

- Expeditionary and USSOCOM C4I systems
- USCENTCOM
- CNE / C6F
- Ballistic Missile Defense/Aegis ashore
- USEUCOM
- USAFRICOM
- MILCON C4I support



Driving integration and interoperability into Naval Capabilities

8 Technology Focus Areas (TFAs) to Achieve Technology Goals

Technology Strategy and TFA analysis drives work acceptance and lab/facility infrastructure allocations and tools.



Artificial Intelligence: Provide warfighters with analytics-driven, data-informed, and technology-empowered capabilities to drive decision advantages and optimal mission outcomes.



Assured Communications: Addresses the demand for resilient, and sometimes covert, wired and wireless communications in degraded and/or denied environments.



Cloud Computing: IT modernization and digital transformation for resilient infrastructure, platform and software services.



Cybersecurity: Provides protection from unauthorized use of and/or defends electronic data, hardware, software from disruption or of the services they provide.



DevSecOps: Refers to replacing siloed Development, Security and Operations to create multidisciplinary teams that collaborate with shared and efficient practices and tools.



Mobility: Provide Wireless Technology and enterprise access for the warfighter to engage with a mobile environment and applications, anytime, anywhere.








Model-Based Systems Engineering (MBSE): Technologies used to support the development, management and application of virtual constructs of varying fidelity across the spectrum of systems engineering.



On-Demand Manufacturing: Produce products and/or components, when or as they are required at the point of use, using additive and/or traditional manufacturing methods.

Delivering within the Full Range of Naval and Joint Operations — Department and Sponsor Alignment

Departments	Major Sponsors		
 Fleet C4I and Readiness Greg Lancaster, SSTM	<ul style="list-style-type: none"> • PMW 120 • PMW 130 • PMW 150 • PMW 160 • PMW 170 	<ul style="list-style-type: none"> • PMW 740 • PMW 750/760 • PMW 770 • PMW 790 • FRD 	<ul style="list-style-type: none"> • NAVSEA • NAVAIR • USCG • Fleet Cyber • Numbered Fleets
 Expeditionary Warfare Ashlee Landreth, SSTM	<ul style="list-style-type: none"> • USMC • SOCOM 	<ul style="list-style-type: none"> • U.S. Army 	<ul style="list-style-type: none"> • U.S. Air Force
 Enterprise Systems Patrick Fitzgerald	PEO MLB <ul style="list-style-type: none"> • PMW 220 PMW 250 • PMM 230 PMS 444 • PMW 240 	PEO D&ES <ul style="list-style-type: none"> • PMW 205 PMW 280 • PMW 260 PMW 290 • PMW 270 	<ul style="list-style-type: none"> • NAVSEA 04I • DISA • Numerous Small DON Project
 Shore C2ISR and Integration Bruce Carter, SSTM	<ul style="list-style-type: none"> • Defense Health Agency • Commander, Navy Installations Command • Marine Corps Installations Command 	<ul style="list-style-type: none"> • Naval Air Systems Command • Naval Facilities Engineering Command • Defense Logistics Agency Energy 	
 Science and Technology Dr. Suzanne Huerth, SSTM	<ul style="list-style-type: none"> • Defense Advanced Research Projects Agency (DARPA) • Office of Naval Research (ONR) 	<ul style="list-style-type: none"> • Office of the Secretary of Defense (OSD) • Navy Tactical Exploitation of National Capabilities (TENCAP) 	

Fleet C4I and Readiness Department

Fleet C4I and Readiness Department

FY20: 1,567 FTEs

150 Programs / Projects

- Engineer (design, develop and test) new C4ISR capabilities that give our Fleet an advantage over adversaries.
- Integrate C4ISR systems into the U.S. Navy's newest and most advanced ships and submarines.
- Install C2, intel, communications, networks and applications for the Fleet.
- Support Fleet C4ISR systems to maintain operational availability and complete lifecycle engineering.

▼ Fleet C4I and Readiness Divisions

Ensuring Information Warfare superiority through collaboration, alignment and engineering excellence.

- Battlespace Awareness (PMW 120)
- Information Assurance and Navy Cybersecurity (PMW 130)
- Navy Afloat Networks & C2 Applications (PMW 150 & 160)
- Navy Afloat Transport & Navigation Division (PMW 170)
- Foreign Mil. Sales / Air Integration / Coast Guard (PMW 740)
- Surface Ship Integration (PMW 750/760)
- Submarine Integration (PMW 770)
- Shore C4I Integration (PMW 790)
- Fleet Installations and Response

Major Sponsors

- | | | |
|-----------|---------------|-------------------|
| ▪ PMW 120 | ▪ PMW 170 | ▪ NAVSEA |
| ▪ PMW 130 | ▪ PMW 740 | ▪ NAVAIR |
| ▪ PMW 150 | ▪ PMW 750/760 | ▪ USCG |
| ▪ PMW 160 | ▪ PMW 770 | ▪ Fleet Cyber |
| | ▪ PMW 790 | ▪ Numbered Fleets |
| | ▪ FRD | |

NIWC Atlantic continued to support the Fleet in the COVID pandemic through modernization support for 28 surface C4I modernization availabilities with 838 alternations and 23 submarine C4I modernization availabilities with 456 alternations.



Expeditionary Warfare Department

ExW Department

FY20: 633 FTEs

73 Programs / Projects

- Deliver Information Warfare capabilities to the Marine Corps and Special Operations Command
- Provide full spectrum C4ISR systems and services to Marines and Special Forces
- Engineer end-to-end C4ISR systems in tactical vehicles
- Develop and sustain Enterprise IT system capabilities and solutions

▼ Expeditionary Warfare Divisions

Rapidly delivering C4ISR, Cyber and IT systems and engineering services to meet the Information Warfare needs of the Marine Corps and Special Operations Command.

- Expeditionary Intelligence Solutions
- Expeditionary Enterprise Systems and Services
- Land Systems Integration
- Expeditionary Command, Control and Communications (C3) Solutions

Joint Light Tactical Vehicle (JLTV) Military GPS User Equipment (MGUE) Land Systems Integration Team received Letter of Appreciation July 2020 from Department of the Air Force, US Space Force, for their efforts in obtaining an Acquisition Program Baseline milestone early despite numerous technical and COVID19 challenges.



Major Sponsors

- U.S. Marine Corps
- SOCOM
- U.S. Army
- U.S. Air Force



Enterprise Systems Department

ES Department

FY20: 525 FTEs

44 Programs / Projects

- Provide engineering, logistics, and PM support solutions for Manpower, Logistics, and Business challenges
- Provide automation through development and deployment of modern software-intensive solutions
- Networks and Satellite Communication Gateways
- Hosting for software application and services including private and commercial Cloud services

▼ Enterprise Systems Divisions

Rapidly identify and implement affordable Enterprise IT services & solutions by promoting innovation, developing our personnel and forming strategic partnerships across NIWC Atlantic and with our customers.

- Data Center & Cloud Hosting Services (DC2HS)
- Manpower, Personnel, Training & Education (MPT&E)
- Enterprise Business Systems (EBS)
- Infrastructure Systems (IS)
- Afloat Applications

Deployed enhancements to the processing Order Modification Personnel Manning Action Requests for Sailors Permanent Change of Station orders that were directly impacted by the COVID-19 pandemic.

The change allows auto-approval of order modification workflows designated as "COVID-19 directed".

This resulted in manpower savings and ensured order modifications are processed quickly to keep orders moving during the COVID-19 pandemic.

Major Sponsors

PEO MLB

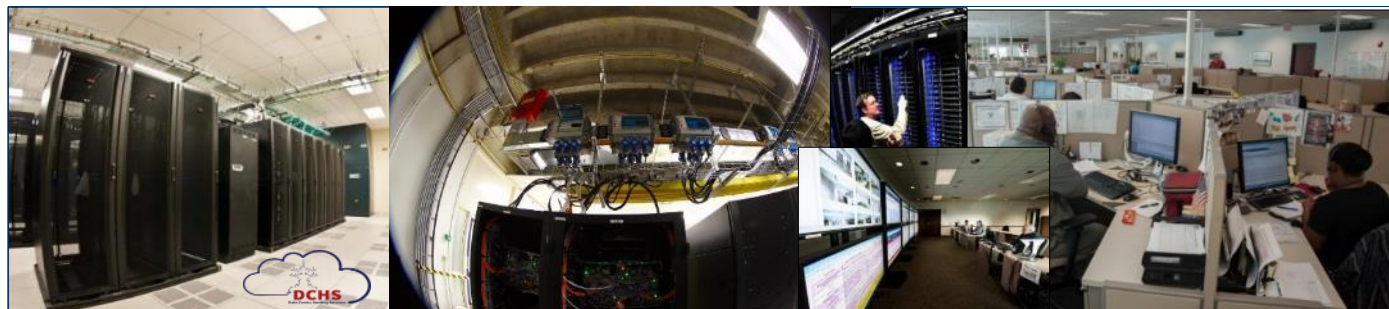
- PMW 220, PMW 250
- PMM 230, PMS 444
- PMW 240, PMW 150

PEO D&ES

- PMW 205, PMW 280
- PMW 260, PMW 290
- PMW 270

▪ NAVSEA

- DISA
- Numerous small DON projects



Shore C2ISR and Integration Department

Shore C2ISR and Integration Department

FY20: 777 FTEs

122 Programs / Projects

- Engineer, deliver and sustain Naval Air Traffic Control and meteorology systems worldwide
- Design, engineer and sustain IW solutions for command and control, intelligence customers
- Provide and sustain cyber-hardened electronic security and shore industrial controls systems
- Engineer, integrate and deploy advanced networking, cyber resiliency and data analytics for military health systems modernization

▼ Shore C2ISR and Integration Divisions

Engineering and fielding systems supporting operational forces overseas and readiness missions stateside.

- Defense Health Information Technology
 - Cyber Security Service Provider (CSSP)
- Special Reconnaissance, Surveillance and Exploitation
- Force Protection Solutions
 - Electronic Security Systems
- Industrial Controls Systems and Applications
- Command and Operations Centers
- Air Traffic Control Engineering
 - Provides all shore-based ATC systems (more than 72 Navy and Marine Corps facilities)



Supported Theater Medical Information Program-Maritime, Chat services and fuel for USNS Comfort during the ship's deployment in NYC and transit to Los Angeles

Major Sponsors

- | | |
|---|--|
| ▪ Defense Health Agency | ▪ Naval Air Systems Command |
| ▪ Commander, Navy Installations Command | ▪ Naval Facilities Engineering Command |
| ▪ Marine Corps Installations Command | ▪ Defense Logistics Agency Energy |



Science and Technology Department

Science and Technology

FY20: 97 FTEs

67 Programs / Projects

- Technical mgmt., research and development, and integration support to develop advanced technologies that ensure technological superiority for the Navy, Marine Corps and Joint Warfighters.
- Develop, motivate and sustain partnerships with industry and academia to expand research opportunities, recruitment and promote technology transfer to/from the private sector.
- Analyze C4ISR and Space systems to identify gaps in capability; assist in strategic roadmaps to future technology development.
- Rapidly prototype and demonstrate capabilities that address emergent Naval technology needs.

▼ Science and Technology Lead Managers

Researching, prototyping and managing advanced technology development ensuring technical superiority

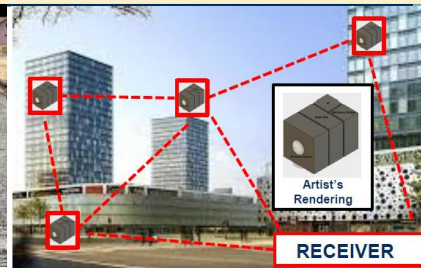
- Defense Advanced Research Project Agency (DARPA)
- The Office of Naval Research (ONR)
- Naval Innovative Science and Engineering (NISE)
- Advanced Technology Research (ATR)



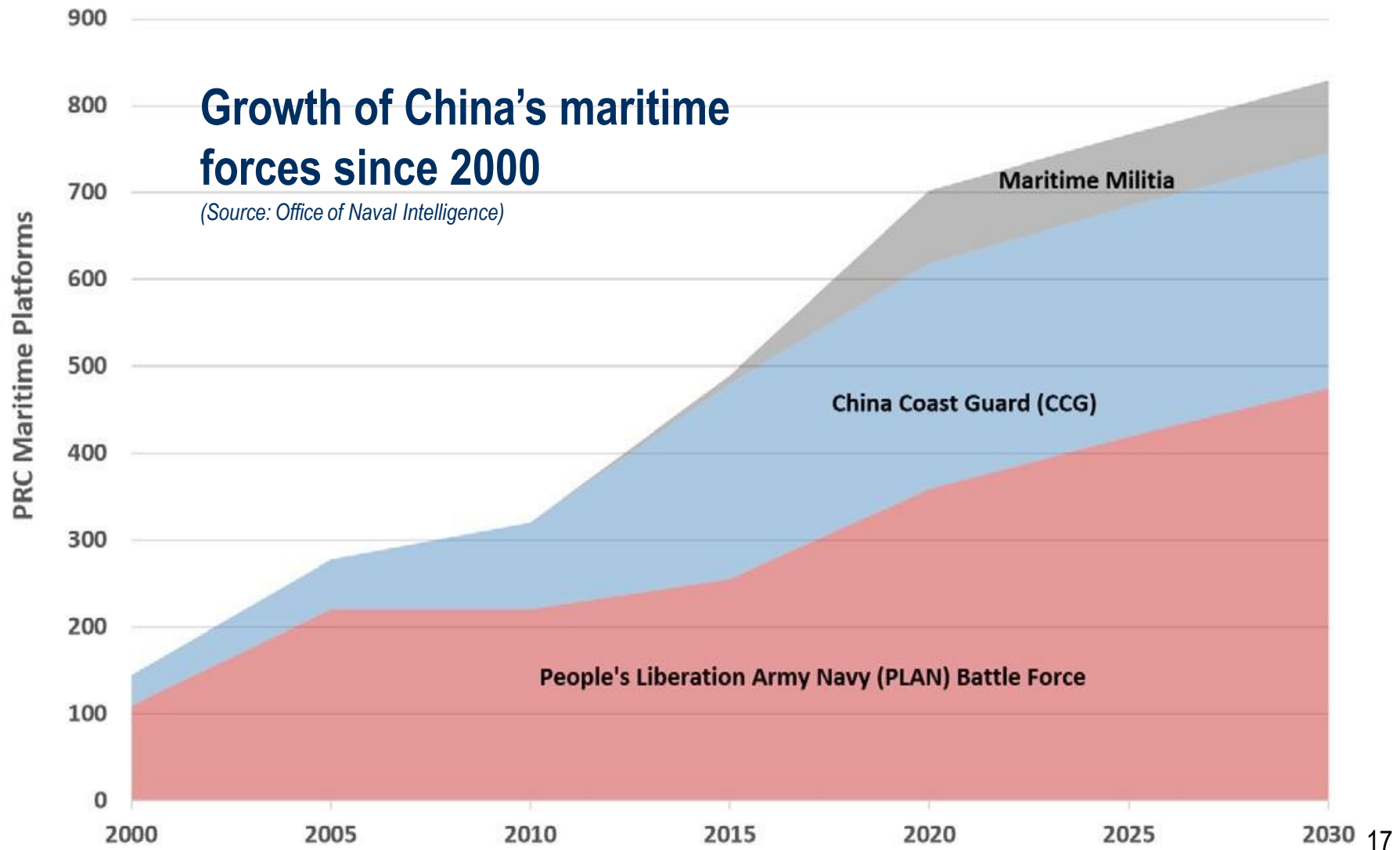
5G Experiments –
Leading the Ship-wide /
Pier Connectivity
experiment at Naval
Base Norfolk, VA

Major Sponsors

- Defense Advanced Research Projects Agency (DARPA)
- Office of Naval Research (ONR)
- Office of the Secretary of Defense (OSD)
- Strategic Capabilities Office (SCO)
- Deputy Assistant Secretary of Defense (Emerging Capability and Prototyping) (DASD (EC&P))
- Navy Tactical Exploitation of National Capabilities (TENCAP)



Urgency to move faster, take advantage of Innovation and Advancing Technologies



IWRP is the first Naval Consortium to have successful prototypes transitioned to production.

Mission to foster collaboration between Government, Industry and Academia to identify, develop and demonstrate the enabling technologies necessary to enhance the Navy and Marine Corps mission effectiveness in the field of Information Warfare.

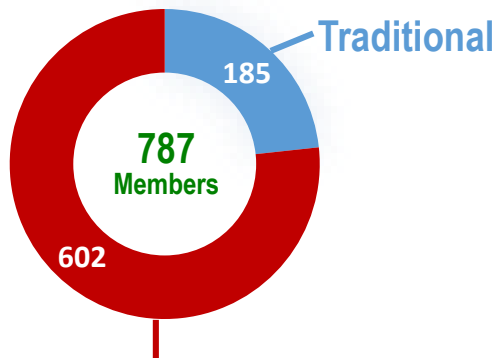
Membership Spans 37 States



Since Oct FY19 1048+ Structured collaboration engagements between industry and the government

Become a member

<https://www.theiwrp.org>



77% Nontraditional Industry bases allows access to move innovative capabilities

\$500M

Ceiling

85 prototypes
(\$193M)

Awarded to Date

6 Production
(\$253M)

Awarded to Date

69% (58 of 84)
Awarded to Non-Traditionals

\$2.3M

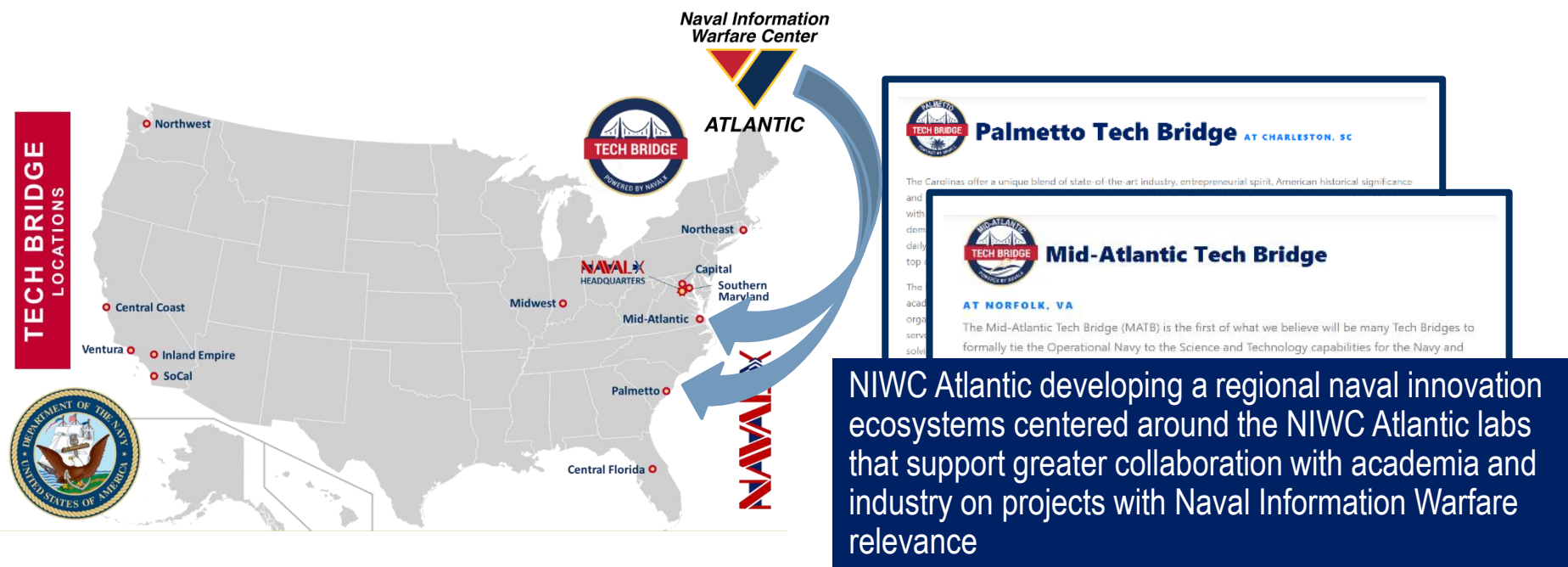
Average Prototype Award

47

Industry Day & CMF Events

NavalX serves as DON workforce "super-connector," focused on scaling nontraditional agility methods across the DON workforce.

- ▼ The approach is to connect to pockets of excellence to capture and scale the methodologies being employed, increasing awareness of cross-DoD and external successes, lessons learned, and subject matter experts.



Advanced Naval Technology Exercises

- ▼ Ship to Shore Maneuver Exploration and Experimentation (S2ME2)
 - FVT, FET, 2 projects in attendance
- ▼ Urban 5th Generation Marines (U5G)
 - FVT, FET, 4 projects in attendance, 2 Focus Area Leads (C2, UxS), 25 people
- ▼ Fight the Naval Force Forward (FNFF)
 - West – 2 Focus Area Leads (C2, UxS), 15 Assessors
 - East – Huge support, 10 projects, 3 Focus Area Leads (C2, Comms, UxS), 50+ engineers, 15 assessors
- ▼ Naval Integration in a Contested Environment (NICE)
 - **NR&DE Lead, FVT, FET, Commercial Solutions Opening (CSO), 9 projects, 4 Focus Area Leads**



Exposure to future concepts impacts technology decisions

Naval Integration in Contested Environments (NICE) Advanced Naval Technology Exercise (ANTX) 2021

Over 60 emerging technologies were evaluated by the Navy and Marine Corps for future warfighter application.

10-day Exercise
(Apr.5-14, 2021 Camp Lejeune, N.C)



Articles and Videos go to <https://www.niwcatlantic.navy.mil>

Office of Small Business Programs

Providing the direction and resources needed to participate in the critical IW capabilities for the Warfighter



By the Numbers (FY20)

- 47% Total Small Business
- 400+ Small Businesses
- 97% Competition
- \$3.76B Total Obligation Authority
- \$1.85B Total Obligations

Small Business and Industry Outreach events provide networking opportunities.

Events are held in Charleston, SC; New Orleans, LA and Norfolk, VA.

- In the Charleston and New Orleans area the event is hosted by the Charleston Defense Contractor's Association (CDCA) <http://www.charlestdca.org>
- In the Tidewater area, the event is hosted by the Tidewater Association of Service Contractors (TASC) <http://tasc-tgic.org>
- The Contracts Industry Council (CIC) is a forum for exchange of ideas to improve capabilities to the Warfighter

FY20 Small Business Targets and Achievements



Total SB eligible dollars \$1,850,416,064.60	SB	SDB	WOSB	HUB Zone	SDVOSB
Dollars obligated	\$883,336,075	\$396,260,648	\$254,676,970	\$33,558,665	\$166,230,729
Target	40.83%	20.00%	12.78%	1.58%	5.94%
Achievement (10/1/2019-9/30/2020)	47.74%	21.41%	13.76%	1.81%	8.98%

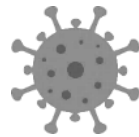
Cultivating the Next Workforce & with our Communities

For the **THIRD YEAR!**
Winner
Best Place to Work!

The Post and Courier
CHARLESTON'S
choice

Career & Science Fairs — Cyber Defense Competitions — Cybersecurity Summer Camp — Distinguished Gentlemen Club — Educators in Industry Program — Essay Contests — Feed the Feds Food Drive — FIRST Robotics Leagues — Geographic Information Systems (GIS) — Girls Day Out — Habitat for Humanity — Lunch Buddies — Navy Family Services — Job Shadows & School Tours — SeaPerch — STEM Festivals — STEM Mobile Apps — Toastmasters — Toys for Tots Campaign — Trident Day of Caring — VA Homeless

In response to COVID-19
NIWC Atlantic quickly reorganized the STEM Program to produce first ever virtual events, many open to students across the country



- Career Fairs
- STEM Clubs
- Robotics
- GIS Week
- Palmetto Cyber Summer Camp
- Girls Day Out Summer Camp
- STEM Mobile Apps / Summer Interns

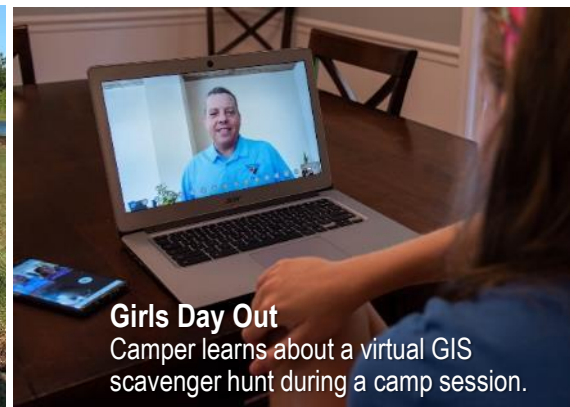
FY20 Community Impact & Volunteerism

- 71,000+ Students Served
- 300+ Volunteers
- 5,100+ Total Hours*
- 103 First Robotics Teams
- 11 Educational Partnership Agreements

**COVID reduced hours normally supported; however, virtual helped to maintain STEM impact.*



Cyber Camp
Students learned to make water rockets via one of the virtual sessions.



Girls Day Out
Camper learns about a virtual GIS scavenger hunt during a camp session.



STEMFest



Palmetto Cybersecurity Summer Camp

STEM Mobile Apps





Serve our Nation by delivering information warfare solutions that protect national security. WIN THE INFORMATION WAR.



NIWC Atlantic is part of the Naval Research & Development Establishment (NR&DE)

Web: <https://www.niwcatlantic.navy.mil> Facebook: <https://www.facebook.com/NavalInformationWarfareSystemsCommand>

Twitter: <https://twitter.com/navwarHQ> Instagram: <https://www.instagram.com/spawarhq/> LinkedIn: <https://www.linkedin.com/company/spawar/>

Glassdoor: <https://www.glassdoor.com/Overview/Working-at-SPAWAR-Systems-Center-Atlantic-El-IE638508.11,41.htm>

Employment opportunities: <https://www.usajobs.gov/> NIWC Atlantic Small Business: <https://www.niwcatlantic.navy.mil/for-industry/>

NAVWAR Contract Directorate Office: <https://e-commerce.sscno.nmci.navy.mil>